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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,469	12/27/2001	Charles A. Miller	2026.0030000	7774

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EXAMINER

TOLIN, GERALD P

ART UNIT

PAPER NUMBER

2835

DATE MAILED: 07/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/026,469

Applicant(s)

MILLER, CHARLES A.

Examiner

Gerald P Tolin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-8, 16, 17, 20, 21 and 23-26 is/are allowed.
- 6) ☒ Claim(s) 1-4, 9-15, 18, 19, 22, 27-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 12.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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1. The 6-20-03 amendment and the IDS art are received and made of record.
2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4, 9-15, 18, 19, 22, and 27-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The use of "lithographic compliant interconnects" is confusing and indefinite. As far as method claim 27 is concerned, "lithographic" is not a method step, it merely modifies the type of interconnect. Further, without further clarifying language to explain precisely what is meant, it is unclear what is meant by this language. Is it lithographically joined to the pad? Is the whole interconnect lithographically formed? None of these possibilities is evident from the claim language.

Article claims 1 and 28 suffer from the same confusion above as to what is meant by this language. Further, such language appears to be drawn to the method of making the article. Since there is no difference in the structure of the interconnect seen by this method of producing it, the presence of a process limitation in a product claim cannot impart patentability to that product (unless it otherwise distinguishes over the prior art)(In re Thorpe, 227 USPQ964, 1985).

In new claim 29, "non-contacting compliant interconnects" is unclear and indefinite.

They must contact something. Further, clarifying language is needed.

4. The above claims will be acted on based on prior art only insofar as the scope of these claims can be understood.

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5. Claims 1-4,9-15,18,19,22,27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herrell taken with either DiStefana(224) or Dozier,II(149).

Paragraphs 5 and 6 of the last action explain the primary reference. The new lithographic language is not discussed in Herrell which shows the previously recited details as per the last office action, but such new language and structure is employed in both secondary references. Using well known lithographic compliant contact details as per either secondary reference to use in Herrell to modify his interconnects 38 would clearly have been obvious to save space by employing closer tolerances and dimensions, as is well known in such techniques.

6. Claims 5-8,16,17,20,21 and 23-26 are allowed in view of the current amendment.

7. New claims 29-31 will now be examined.

8. Claims 29 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Herrell.

All is clearly shown. Concerning claim 29 and the new non-contacting language in relation to original claim 1, as far as understood in view of the 112 rejection above, interconnects 38 are "non-contacting" at their mid-portions.

Concerning claim 30, compliant interconnects such as 38 in the reference must exert some degree of pressure in both directions, especially if the device were upside down or on its side. This limitation is very broad. All else is clearly shown.

9. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Khandros(213) or Khandros(707) taken with Herrell.

Khandros (213) provides substrates 104/108 with compliant interconnects 110 and devices 102/106. Figure 32 of the other Khandros reference provides a similar teaching. Either of these references could be employed with the Herrell cooling system. Such would have been obvious to better cool known heat producing components.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gerald P Tolin whose telephone number is 703-308-3114. The examiner can normally be reached on M-F first friday off.

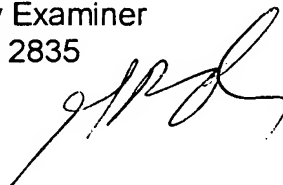
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 703-308-0538. The fax phone numbers for

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the organization where this application or proceeding is assigned are 703-305-1341 for regular communications and 703-305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Gerald P Tolin
Primary Examiner
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A handwritten signature in black ink, appearing to be 'GPT', written over the printed name and title of the examiner.

gpt
July 16, 2003